

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A process of manufacturing a nozzle plate for an ink-jet print head, said nozzle plate including (a) a substrate having an outside surface which is to be opposed to a print media, an inside surface which is opposite to said outside surface and nozzle holes which are formed through said substrate so as to be open in said outside and inside surfaces, and (b) a non-wetting layer which has a non-wetting characteristic and which covers said outside surface of said substrate, said process comprising:

a masking step of applying a resist on said inside surface of said substrate, and charging said nozzle holes with said resist such that portions of said resist protrude outwardly from openings of said nozzle holes on said outside surface;

a non-wetting-layer forming step of forming said non-wetting layer on said outside surface in a plating operation; and

an unmasking step of removing said resist from said ~~substrate~~ nozzle holes after forming said non-wetting layer.

2. (Original) A process of manufacturing a nozzle plate for an ink-jet print head, said nozzle plate including (a) a substrate having an outside surface which is to be opposed to a print media, an inside surface which is opposite to said outside surface and nozzle holes which are formed through said substrate so as to be open in said outside and inside surfaces, and (b) a non-wetting layer which has a non-wetting characteristic and which covers said outside surface of said substrate, said process comprising:

a substrate setting step of setting said substrate on a support, such that said outside surface is positioned downwardly of said inside surface, without openings of said nozzle holes on said outside surface being in contact with said support;

a masking step of applying an insulating material on said inside surface and charging said nozzle holes with said insulating material;

a non-wetting-layer forming step of forming said non-wetting layer on said outside surface; and

an unmasking step of removing said insulating material from said substrate, wherein said masking step includes:

an insulating-material disposing step of disposing a resist as said insulating material on said inside surface of said substrate; and

a bar coating step of disposing a bar on said resist disposed on said inside surface, and moving at least one of said bar and said substrate relative to the other in a direction parallel to said inside surface such that portions of said resist protrude outwardly from openings of said nozzle holes on said outside surface of said substrate.

3. (Original) A process according to claim 2,

wherein said support has a large height portion and a small height portion,

and wherein said substrate is set on said support in said substrate setting step, such that said substrate is supported by said large height portion while each of said openings of said nozzle holes is positioned above said small height portion.

4. (Original) A process according to claim 2, wherein said bar coating step is implemented such that each of said portions of said resist protrudes outwardly from a corresponding one of said openings of said nozzle holes by at least 1 μm .

5. (Original) A process of manufacturing a nozzle plate for an ink-jet print head, said nozzle plate including (a) a substrate having an outside surface which is to be opposed to a print media, an inside surface which is opposite to said outside surface and nozzle holes which are formed through said substrate so as to be open in said outside and inside surfaces,

and (b) a non-wetting layer which has a non-wetting characteristic and which covers said outside surface of said substrate, said process comprising:

a through-holes forming step of forming through-holes as said nozzle holes in said substrate, by punching said substrate from said inside surface toward said outside surface;

a masking step of applying an insulating material on said inside surface and charging said nozzle holes with said insulating material;

a surface smoothing step of smoothing said outside surface;

a non-wetting-layer forming step of forming said non-wetting layer on said outside surface in a plating operation; and

an unmasking step of removing said insulating material from said substrate.

6. (Original) A process according to claim 5, wherein said nozzle holes are charged with a resist as said insulating material in said masking step such that portions of said resist protrude outwardly from openings of said nozzle holes on said outside surface of said substrate.

7. (Original) A process according to claim 5,

wherein said masking step includes:

an insulating-material disposing step of disposing a resist as said insulating material on said inside surface of said substrate; and

a bar coating step of disposing a bar on said resist disposed on said inside surface, and moving at least one of said bar and said substrate relative to the other in a direction parallel to said inside surface such that portions of said resist protrude outwardly from openings of said nozzle holes on said outside surface of said substrate.

8. (Original) A process according to claim 6, wherein each of said portions of said resist protrudes outwardly from a corresponding one of said openings of said nozzle holes by at least 1 μm .

9. (Original) A process according to claim 5, wherein said surface smoothing step is implemented by a lapping operation in which the outwardly protruding portions of said resist, together with burrs formed at edges of said openings of said nozzle holes on said outside surface in said through-holes forming step, are eliminated.

10. (Currently Amended) A process of manufacturing a nozzle plate for an ink-jet print head, said nozzle plate including (a) a substrate having an outside surface which is to be opposed to a print media, an inside surface which is opposite to said outside surface and nozzle holes which are formed through said substrate so as to be open in said outside and inside surfaces, and (b) a non-wetting layer which has a non-wetting characteristic and which covers said outside surface of said substrate, said process comprising:

a masking step of applying an insulating material on said inside surface and charging said nozzle holes with said insulating material, by superposing said substrate on a resist layer formed of a resist as said ~~insulating~~ insulating material, such that said inside surface is brought into contact with said resist layer, so that said nozzle holes are charged with said resist owing to a capillary action of said resist;

a non-wetting-layer forming step of forming said non-wetting layer on said outside surface in a plating operation; and

an unmasking step of removing said resist from said substrate.

11-21. (Cancelled)

22. (New) A process according to claim 1, further comprising a surface smoothing step of smoothing said outside surface and eliminating the outwardly protruding

portions of said resist such that flat end surfaces of said resist which are flush with said outside surface are formed.

23. (New) A process according to claim 1, wherein said non-wetting-layer forming step is implemented after implementation of said masking step, such that said non-wetting layer is formed on said outside surface that is not masked with said resist.

24. (New) A process according to claim 1, wherein said unmasking step is implemented such that said resist is removed from said inside surface as well as from said nozzle holes.